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09/183,715	10/30/1998	VINCENTZIO I. ROMAN	500.709US1	3436

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EXAMINER	
TRAN, CONGVAN	

ART UNIT	PAPER NUMBER
2683	16

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/183,715	Applicant(s) ROMAN, VINCENTZIO I.	
	Examiner Congvan Tran	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This office Action is in response to Amendment filed on April 01, 2003.

2. Claims 1, 12, 21, 31, 40, 46 have been amended.

3. Claims 55-69 have been added.

Response to Arguments

4. In response to applicant's argument to claim 1, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "substantially linear communication regions"). Examiner respectfully disagrees. In fig.5 of Shohara's reference the regions 1b and 2c is linear communication regions. Therefore, interpreting the substantially linear communication regions is a reasonable interpretation.

5. In response to applicant's argument to claims 12, 21, 40, 46, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "disposed to form substantially linear communication regions" in which the communication circuit "use a first polarization in one of the communication regions and a second, different polarization for signals communicated in communication regions adjacent to the one of communication regions"). Examiner respectfully disagrees. In fig.5 of Shohara's reference the regions 1b and 2c is linear communication regions and a first polarization in one of the communication regions and a second, different polarization for signals communicated in communication regions adjacent to the one of communication regions (see fig.5, H1 and V2). Therefore, interpreting the use a first polarization in one of the communication regions and a

second, different polarization for signals communicated in communication regions adjacent to the one of communication regions is a reasonable interpretation.

6. In response to applicant's argument to claim 31, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "forming boundaries between bands of communication regions" in which the communication circuit "). Examiner respectfully disagrees. In fig.5 of Shohara's reference forming boundaries by dividing plurality of sectors 1a-d, 2a-d ect... Therefore, interpreting the forming boundaries between bands of communication regions is a reasonable interpretation.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Shohara (6,301,482).

Regarding claim 1, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising a number of communication circuits disposed to divided a region into communication areas (see fig.1, elements 2, and its description); wherein each communication circuit communicates using a first polarization in a first portion of its communication area and communicates using a second, different polarization in a second portion of its communication area (see fig.5, elements H1 horizontal polarization, V2 vertical polarization, and its description); and wherein adjacent first portions of communication areas for a plurality of different communication circuits use the same polarization to form communication regions of same polarization (see fig.5, elements 1b, 2c and its description).

Regarding claim 12, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising a number of communication circuits disposed to form substantial linear boundaries between communication areas (see fig.1, elements 2, fig.5, 1b, 2c and its description); and wherein the communication circuits use a first polarization in one of the communication regions and a second, different polarizations for signals communicated in communication regions adjacent to the one of the communication regions (see fig.5, elements 1b, 2c, H horizontal polarization, V vertical polarization, and its description);

Regarding claims 21, 46, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising dividing a region into a number of communication

areas, each communication area including a communication circuit (see fig.1, elements 2, fig.2 and its description); communicating using a first polarization in a first portion of each communication area (see fig.5, H1 horizontal polarization and its description); communicating using a second polarization in a second portion of each communication area (see fig.5, V1 vertical polarization and its description); and wherein adjacent first portions of communication areas for a plurality of different communication circuits use the same polarization to form communication region belts having the same polarization (see fig.5, elements 1b, 2c and its description).

Regarding claim 31, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising forming boundaries between bands of communication regions by disposing a number of communication circuits (see fig.5, and its description); communicating using a first polarization in a first band (see fig.5, H2 horizontal polarization and its description); and communicating using a second polarization in bands that are adjacent region to the first band (see fig.5, elements 1b, 2c, V1 vertical polarization and its description).

Regarding claim 40, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising forming a number of communication areas, each communication area including a communication circuit, each communication circuit communicating a first polarization in a first portion of each communication area and a second polarization in a second portion of each communication area (see fig.1, fig,2, element 2, fig.5, H horizontal, V vertical and its description); forming a number of communication regions in belts of either the first or second polarization wherein

adjacent portions of communication areas between different communication circuit use the same polarization (see fig.5, elements 1b, 2c and its description); and forming a number of sectors within each communication area, where the first and second portions of communication area are divided along a number of boundaries of the sectors, each sector communicating on a different subband of frequency spectrum (see fig.5, elements 1a-d, and its description).

Regarding claim 55, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising a first plurality of communication circuits disposed in a first row (see fig.5, elements 1a-d, 2a-d, 3a-d and its description); a second plurality of communication circuits disposed in at least on additional row (see fig.5, elements 4a-d, 5a-d, 6a-d and its description); wherein the first plurality of communication circuits and the second plurality of communication circuits use a first polarization between first row and at least one additional row (see fig.5, 1a-d, 2a-d, H1, H2, 5a-d, 6a-d, H1, H2 and its description); wherein the first plurality of communication circuits and the second plurality of communication circuits use a second, different polarization for communications not between the first and at least one additional rows (see fig.5, 1a-d, 2a-d, V1, V2, 4a-d, 5a-d, H1, H2 and its description).

Regarding claim 60, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising a number of communication circuits disposed along a boundary first and second substantially linear communication regions (see fig.5, elements 4a-d, 5a-d, and its description); wherein each communication circuit communicates with a first polarization in the first communication region on one side of

the boundary and a second, different polarization in the second communication region on the other side of the boundary (see fig.5, elements 4a-d, 5a-d , V1, V2, H1, H2 and its description).

Regarding claim 65, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising disposing a plurality of communication circuits on a boundary between first and second region (see fig.5, elements 4a-d, 5a-d, and its description); configuring each of the plurality of communication circuits to communicate using a first polarization in the first region (see fig.5, elements 4a-d, 5a-d, V1, V2 and its description); configuring each of the plurality of communication circuits to communicate using a second polarization in the second region (see fig.5, elements 4a-d, 5a-d, H1, H2 and its description).

Regarding claim 69, Shohara discloses a DMA cellular radio system with a channel quality criterion, comprising disposing a first plurality of communication circuits in a first row (see fig.5, elements 4a-d, 5a-d, 6a-d, and its description); disposing a second plurality of communication circuits in a second row (see fig.5, elements 7a-d, 8a-d, 9a-d, and its description); configuring the first plurality of communication circuits and the second plurality of communication circuits to use a first polarization between the first row and the at least additional row (see fig.5, elements 4a-d, 5a-d, 8a-d, 9a-d, H1, H2 and its description); configuring the first plurality of communication circuits and the second plurality of communication circuits to use a second, different polarization for communications not between the first row and the at least additional row (see fig.5, elements 4a-d, 5a-d, 8a-d, 9a-d, V1, V2 and its description);

Regarding claims 2-11, 13-20, 22-30, 32-39, 41-45, 47-54, 56-59, 61-64, 66-68, Shohara also discloses in fig.5 and fig.7, see its description.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Congvan Tran whose telephone number is 703-305-4024. The examiner can normally be reached on monday-thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Congvan Tran
Examiner
Art Unit 2683

CT
June 13, 2003

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600